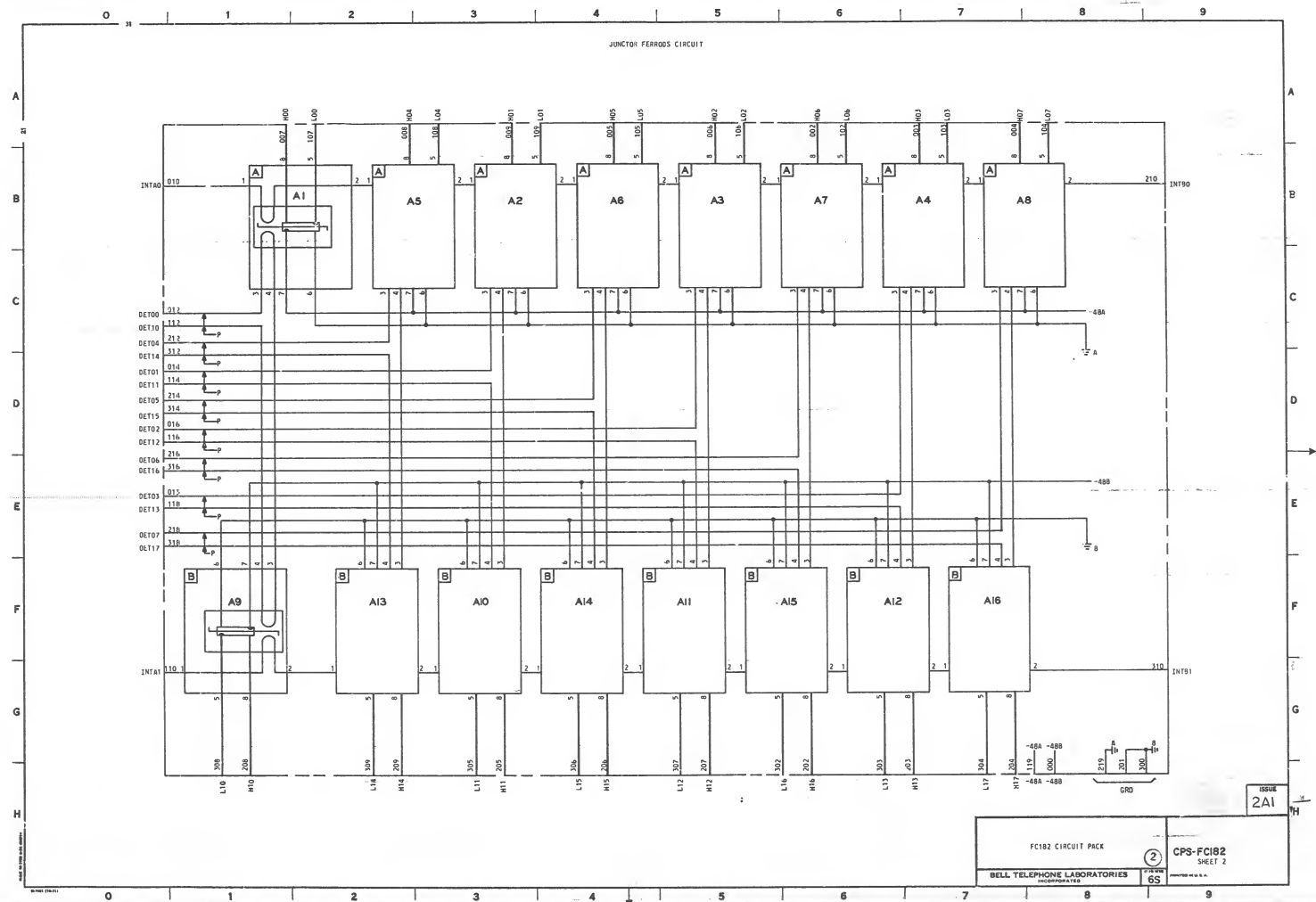




FERROD SENSOR



DESIG	LOC	CODE
A1	281	28
A2	283	
A3	284	
A4	286	
A5	282	
A6	284	
A7	285	
A8	287	
A9	2F0	
A10	2F2	
A11	2F4	
A12	2F6	
A13	2F2	
A14	2F3	
A15	2F5	
A16	2F7	28

PURPOSE OF CIRCUIT

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THIS CIRCUIT PROVIDES 16 FERROD SCAN POINT ELEMENTS WHICH ARE USED IN THE NO. 3 ESS JUNCTION AND JUNCTION CONTROL UNIT, SDH200-01.

THE FC182 FERROD CIRCUIT PACK HAS 16 FERRODS (TYPE 28) MOUNTED TO FORM A 2-BY-8 MATRIX. THE INTERGATE WINDINGS OF THE (EIGHT) FERRODS WHICH FORM A HALF ROW ARE CONNECTED IN SERIES AND THE READOUT WINDINGS OF EACH FERROD IN ONE HALF ROW IS CONNECTED IN SERIES WITH THE READOUT WINDINGS OF THE CORRESPONDING FERROD IN THE OTHER HALF ROW. ALL CONTROL WINDINGS OF THE FERRODS ON THE FC182 FERROD PACK ARE ARRANGED INTERNALLY IN THE BATTERY AND GROUND CONFIGURATION.

IN THE BATTERY AND GROUND CONFIGURATION, THE -48 V BATTERY AND GROUND ARE SUPPLIED THROUGH THE FERROD CONTROL WINDINGS TO THE USING CIRCUIT. RESISTORS TO LIMIT THE CURRENT IN THE CONTROL WINDINGS MUST BE PROVIDED BY THE USING CIRCUIT.

FUNCTIONAL DESCRIPTION

FUNCTIONAL DESCRIPTION

THE FERROD IS THE BASIC SCAN ELEMENT OF A SCANNER. IT CAN BE CONSIDERED A 2-WINDING TRANSFORMER WHOSE COUPLING (THE ABILITY TO INDUCE A SIGNAL FROM THE PRIMARY WINDING TO THE SECONDARY WINDING) IS CONTROLLED BY THE AMOUNT OF CURRENT IN THE CONTROL WINDINGS. THE PRIMARY AND SECONDARY WINDINGS OF THE TRANSFORMER ARE ASSOCIATED WITH THE INTERROGATE AND READOUT WINDINGS, RESPECTIVELY.

ISSUE
2A1

FC182 CIRCUIT PACK

CPS-FC182
SHEET 3

BELL TELEPHONE LABORATORIES

2
65